

CLAIMS

1. A volatile corrosion inhibitor to be kneaded into a resin,
wherein the volatile corrosion inhibitor is to be blended into
5 a molding material having a thermoplastic resin as a principal base
material component; and
comprising:
a nitrous acid metal salt having a melting point not less
than a softening temperature of the thermoplastic resin;
10 a benzoic acid metal salt;
a saturated polycarboxylic acid or a metal salt thereof; and
an anticorrosive component for nonferrous metals.
2. The volatile corrosion inhibitor according to Claim 1, wherein
15 the nitrous acid metal salt is at least one selected from a group
consisting of an alkali metal salt and an alkaline earth metal salt
of nitrous acid.
3. The volatile corrosion inhibitor according to Claim 1 or 2,
20 wherein the benzoic acid metal salt is at least one selected from
a group consisting of an alkali metal salt and an alkaline earth metal
salt of benzoic acid.
4. The volatile corrosion inhibitor according to any one of Claims
25 1 to 3, wherein the saturated polycarboxylic acid is at least one
selected from a group consisting of sebacic acid, dodecanedioic acid,
adipic acid, fumaric acid, succinic acid, citric acid, tartaric acid,
and malic acid.
- 30 5. The volatile corrosion inhibitor according to any one of Claims

1 to 4, wherein the metal salt of the saturated polycarboxylic acid is at least one selected from a group consisting of an alkali metal salt and an alkaline earth metal salt.

5 6. The volatile corrosion inhibitor according to any one of Claims 1 to 5, wherein the anticorrosive component for nonferrous metals is at least one selected from a group consisting of 2-mercaptobenzothiazole, 2-benzothiazolylthioacetic acid, 3-2-benzothiazolylthiopropionic acid, 2,4,6-trimercapto-s-triazine,
10 2-dibutylamino-4,6-dimercapto-s-triazine, benzotriazol, methylbenzotriazol, and alkali metal salt, alkaline earth metal salt, zinc salt thereof.

7. The volatile corrosion inhibitor according to any one of Claims
15 1 to 6, comprising the nitrous acid metal salt, the benzoic acid metal salt, the saturated polycarboxylic acid or the metal salt thereof, and the anticorrosive component for nonferrous metals at a mass ratio of 5 to 50 : 10 to 90 : 1 to 80 : 0.1 to 80, respectively.

20 8. The volatile corrosion inhibitor according to any one of Claims 1 to 7, wherein the thermoplastic resin includes a polyolefin resin as a principal component.

9. A molding material for preparation of a volatile anticorrosive
25 resin product, wherein 0.5 to 10 mass % of the volatile corrosion inhibitor according to any one of Claims 1 to 8 is included in a thermoplastic resin.

10. A volatile anticorrosive film obtained by molding the molding
30 material according to Claim 9 into a shape of a film.

11. The volatile anticorrosive sheet obtained by molding the molding material according to Claim 9 into a shape of a sheet.

5 12. A volatile anticorrosive fiber obtained by molding the molding material according to Claim 9 into a shape of a fiber.

13. An anticorrosion method of a metal material, comprising the steps of:

10 molding a container with the volatile anticorrosive film or with the volatile anticorrosive sheet according to Claim 10 or 11;
 inserting the metal material into the container; and
 sealing the container for packaging.